
Two New Species of *Pleurothallis* (Orchidaceae) from the Amazonian Lowlands

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ABSTRACT. *Pleurothallis discophylla* and *P. erythrogramma* are described and illustrated. These new species are distributed in the Amazonian lowlands of Venezuela, Ecuador, Peru, and Bolivia. *Pleurothallis discophylla* has been previously misidentified in the literature as the Bolivian *Pleurothallis coffeicola*, which is almost certainly a synonym of the widespread *P. casapensis*.

The two following undescribed species are locally common and widespread in the western Amazon Basin. Both species are closely related and are characterized by a shortly creeping rhizome, sharply 3-winged ramicauls, broadly elliptic to suborbicular, spreading leaves, and yellow or orange flowers produced singly on short peduncles. Herbarium specimens of these plants have been frequently misidentified as *Pleurothallis coffeicola* Schlechter, a species described from Bolivia that is almost certainly conspecific with the frequent Andean species *Pleurothallis casapensis* Lindley.

***Pleurothallis discophylla* Luer & Carnevali, sp. nov.** TYPE: Ecuador. Morona-Santiago: epiphytic in tall forest along Río Upano N of Macas, 1,100 m, 15 Jan. 1989, C. Luer, J. Luer, P. & A. Jesup, A. Hirtz & S. Ortega 13927 (holotype, MO). Figure 1.

Species haec *P. casapensis* Lindley affinis, sed foliis suborbicularis, pedunculis unifloris et labello pyriformi supra medium orbiculari tenui laevi differt.

Plant medium to large in size, epiphytic, shortly creeping, the rhizome stout, 0.5–3 cm long between ramicauls; roots slender. *Ramicauls* erect, 6–12 cm long, sharply 3-winged, slightly broader toward the leaf, with 2–3 thin, tubular sheaths at the base. *Leaf* spreading, coriaceous, broadly elliptical to su-

borbicular, obtuse, 4–7 cm long, 3–5 cm wide, sessile with the base \pm cordate. *Inflorescence* a fascicle of peduncles, successively single-flowered, borne on top of the leaf, subtended by a spathe 5–7 mm long, from the apex of the ramicaul; peduncles 5 mm long; floral bract 3 mm long; pedicel 3 mm long; ovary cellular-glandular, 2.5 mm long. *Sepals* yellow to orange, brownish yellow or sometimes totally maroon, glabrous, the dorsal sepal linear-obovate, obtuse, thickened and subverrucose within toward the apex, 10–11.5 mm long, 3 mm wide, 3-veined, connate to the lateral sepals for 0.5 mm, the lateral sepals connate into an elliptical, bifid synsepal 9–10 mm long, 7 mm wide, 6-veined, the apex shallowly bifid with the tips acute and apiculate; *petals* translucent or yellow with a purple midvein, elliptical-obovate, obtuse, minutely serrulate, 3 mm long, 1.5 mm wide, with the vein thickened externally, ending in a minute apiculum; *lip* yellow to orange or purple-brown with brownish yellow margin, obovate-pyriform in outline, 5 mm long, 3.5 mm wide, the apex broadly rounded, entire, thin, smooth, the margins above the base erect, rounded, the disk minutely spiculate near the middle, with a pair of parallel, subverrucose calli on the middle third, the base thickened, truncate, hinged to the tip of the column-foot; *column* semiterete, winged above the middle, 3 mm long, minutely toothed at the apex, the foot 2 mm long, the anther, rostellum, and stigma ventral.

Etymology. From the Greek *discophyllos*, “round-leaved,” referring to the broad, flat leaves.

This species is closely related to the frequent *Pleurothallis casapensis*, but *P. discophylla* is found in warm forests at altitudes below 1,200 m. It is distinguished by the creeping rhizome, erect, sharply triquetrous ramicauls; spreading suborbicular leaves;

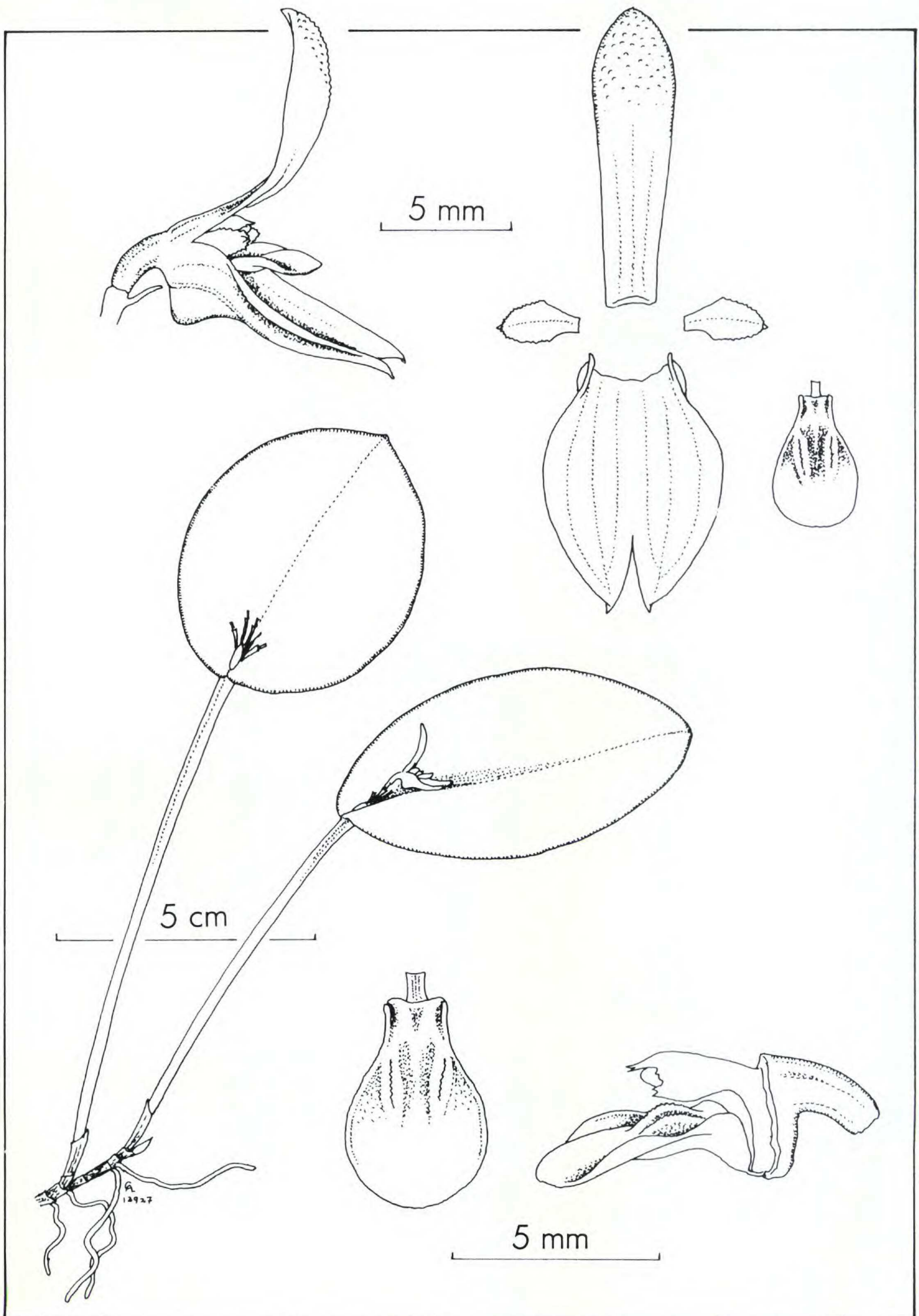


Figure 1. *Pleurothallis discophylla* Luer & Carnevali.

and relatively large, yellow to orange flowers produced singly. The dorsal sepal is erect, thickened, and subverrucose toward the apex. The lateral sepals are connate into a broad, shallowly bifid lamina. The petals are minutely serrulate. The lip is pyriform in outline, broadly rounded, dilated and thin above the middle with smooth margins and surface. Above the base the margins are erect. A pair of subverrucose calli are present below the middle of the disk where the surface is minutely spiculate.

Several authors have misidentified material of this species as *Pleurothallis coffeicola* (Schweinfurth, 1967; Foldats, 1970). An illustration of this species from lowland Venezuela was also misidentified as *Pleurothallis coffeicola* in *Venezuelan Orchids Illustrated* (Dunsterville & Garay, 1972). *Pleurothallis coffeicola* is a smaller plant that produces several flowers in a raceme and occurs at higher altitudes. It is very probably conspecific with *P. casapensis*. The closest relative of *Pleurothallis discophylla* is probably the following species.

Paratypes. ECUADOR. **Napo:** La Cruz, downstream from Misahualli, 400 m, collected by C. & A. Suárez, flowered in cultivation, 29 Mar. 1984, *Luer 9784* (MO). PERU. **Amazonas:** Río Cenepa, vicinity of Huampami, ca. 4°30'S, 78°30'W, 200–250 m, 1 Aug. 1978, *Kujikat 94* (MO). **Loreto:** Maynas, Mishana, 73°35'W, 03°55'S, primary forest at 130 m, 21 July 1984, *Vázquez, Jaramillo & Criollo 5305* (MO); Distrito Iquitos, km 8 Carretera Quisto Cocha-Varillal, perched forest over sand, 130 m, 24 July 1984, "epiphytic," *S. MacDaniel & M. Rimachi 27836* (MO). BOLIVIA. **Cochabamba:** epiphytic in seasonally dry forest, Bulo-Bulo, W of Yapacaní, 300 m, 22 Aug. 1991, *C. Luer, J. Luer, R. Vázquez & D. Ric 15343* (MO). VENEZUELA. **Territorio Federal Amazonas:** Departamento Atabapo, slopes of Cerro Marahuaca, "Sima" area, 03°43'N, 65°30'W, 1,200 m, 19 Oct. 1988, *Liesner 25077* (MO, VEN); Cerro Marahuaca, Sima Camp, 1,140 m, 21–22, 24 Feb. 1985, "common epiphyte," *Steyermark & Holst 130474* (MO, VEN), *Steyermark & Holst 130657* (MO, VEN); Departamento Casiquiare, flooded forest along uppermost Río Yatúa, 100–140 m, 7–8 Dec. 1953, *Maguire, Wurdack & Bunting 36730* (NY), 12 Dec. 1953, *Maguire, Wurdack & Bunting 36763* (NY, VEN), 30–31 Dec. 1954, *Maguire, Wurdack & Bunting 37430* (NY); tall forest near river's edge at Caño Pato, 150 m, Dec. 1965, *Dunsterville & E. Dunsterville 966* (AMES, VEN); Departamento Río Negro, between Caño Temblador and Hauchica, 10 km NE of San Carlos de Río Negro, 120 m, 1°67'N, 67°03'W, 19 Nov. 1977, *Liesner 3672* (MO, VEN); Caño 12 km NE of San Carlos de Río Negro, 1°56'N, 67°03'W, 120 m, 15 Apr. 1979, "epiphyte on Lecythidaceae, forest over white sand," *Liesner 6659* (MO, VEN).

Pleurothallis erythrogramma Luer & Carnevali, sp. nov. TYPE: Ecuador. Napo: epiphytic in trees along Río Cascales E of Lumbaqui, 450 m, 9 Feb. 1986, *C. Luer, J. Luer, Hirtz, Flores & Embree 11766* (holotype, MO). Figure 2.

Species haec *P. casapensis* Lindley affinis, sed foliis suborbicularis, pedunculis unifloris, synsepalo rubrolineato et labello elliptico denticulato differt.

Plant medium in size, epiphytic, shortly repent, the rhizome stout, 0.5–1 cm long between ramicauls; roots slender. *Ramicauls* erect, 6–8 cm long, sharply 3-winged, slightly broader toward the leaf, with 2–3 thin, tubular sheaths at the base. *Leaf* spreading, coriaceous, broadly elliptical to suborbicular, obtuse, 3.5 cm long and 3.5 cm wide to 4.5 cm long and 4.5 cm wide, sessile with the base cordate or subcordate. *Inflorescence* a fascicle of successive, single-flowered peduncles, borne on top of the leaf, subtended by a broad spathe 2–3 mm long and broad, from the apex of the ramicaul; peduncles 1–2 mm long; floral bract 4 mm long; pedicel 6 mm long; ovary 2.5 mm long. *Sepals* yellow, prominently veined in red, fleshy, glabrous, the dorsal sepal linear, acute, thickened at the apex, 13.5 mm long, 2 mm wide, 3-veined, free from the lateral sepals; lateral sepals connate into an ovate, acute synsepal 10 mm long, 6.5 mm wide, 6-veined, the apex shallowly bifid with the tips acute and apiculate; *petals* translucent, obovate, acute or obtuse, minutely serrate, 3 mm long, 1 mm wide, 1-veined; *lip* red, elliptical, 5.5 mm long, 2.5 mm wide, the apex narrowly obtuse, denticulate, the margins in the lower third broadly rounded, the disk with a pair of verrucose calli within the margins of the lower third, the base narrowly truncate, hinged to the base of the column-foot; *column* semiterete, winged above the middle, 3.5 mm long, minutely toothed at the apex, the foot 2 mm long, the anther, rostellum and stigma ventral.

Etymology. From the Greek *erythrogramme*, "red-line," referring to the stripes of the synsepal.

This pretty species is known from the lowlands of eastern Ecuador and Peru. It is closely allied to the sympatric *P. discophylla*. Both species are deceptively alike vegetatively and produce similar flowers singly, but *P. erythrogramma* is distinguished by the red-striped sepals with the dorsal sepal conspicuously long and narrow. The red lip is elliptical and minutely crested and denticulate.

Paratypes. ECUADOR. **Morona-Santiago:** between Misión Bomboiza and Gualaquiza, ca. 850 m, 30 Jan. 1971, *B. MacBryde 170* (MO). PERU. **Amazonas:** epiphytic in primary forest S of Aintami, E of Cenepa, 650 ft., 15 July 1974, *B. Berlin 1605* (MO).

KEY SUMMARIZING THE DIFFERENCES BETWEEN THE TWO NEWLY DESCRIBED SPECIES

1a. Dorsal sepal linear-obovate, obtuse, subverrucose within toward the apex; synsepal broader

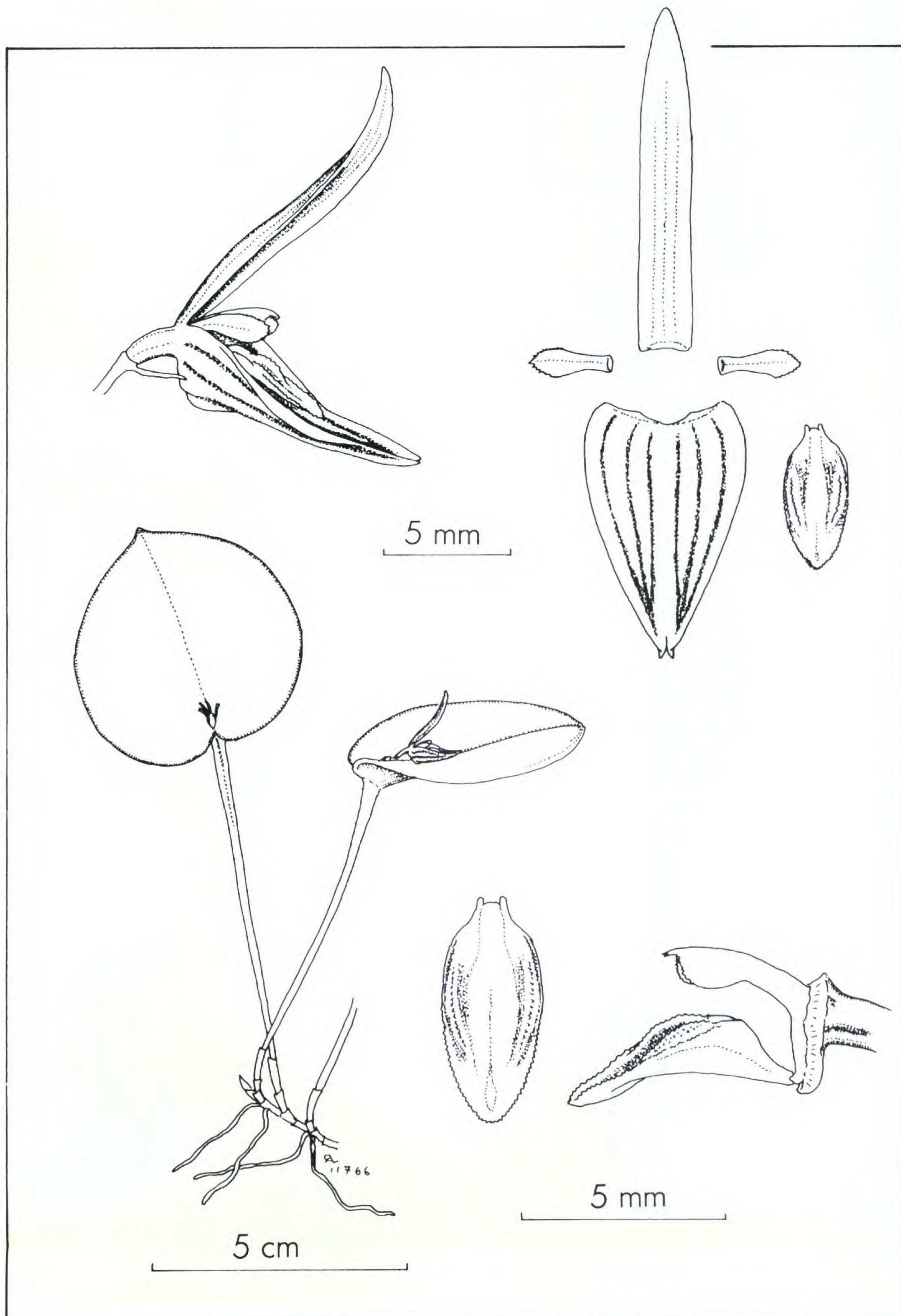


Figure 2. *Pleurothallis erythrogramma* Luer & Carnevali.

toward the middle; petals elliptical-obovate; lip yellow to orange or purple-brown with brownish yellow margin, obovate-pyriform, margins entire, disk smooth or minutely spiculate, ca. 3.5 mm wide; sepals yellow to orange, brownish yellow or totally maroon, nonstriped; spathe 5–7 mm long *Pleurothallis discophylla*

- 1b. Dorsal sepal linear, acute, smooth within; synsepal broader toward base; petals obovate; lip red, elliptical, margins denticulate, disk with a pair of verrucose calli, ca. 2.5 mm wide; sepals yellow with red stripes or veins; spathe 2–3 mm long *Pleurothallis erythrogramma*

Literature Cited

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